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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,284	02/05/2004	Richard Assaker	64118.000046	3238

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EXAMINER

CUMBERLEDGE, JERRY L

ART UNIT	PAPER NUMBER
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3733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/771,284

Applicant(s)

ASSAKER ET AL.

Examiner

Jerry Cumberledge

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/692,894.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>01/11/2007 12/05/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, 10-24, 26-38, and 40-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Bray (US Pat 6,235,034 B1).

Bray discloses a bone plate assembly comprising: a fixation plate (14, Fig. 2 below) having a longitudinal axis along the plate, a locking plate (20, Fig. 2), and a bone fastener (16, Fig. 2) wherein the fixation plate is capable of being fixed by at least the bone fastener to a bone, and wherein the locking plate is capable of being secured to the fixation plate and is longitudinally adjustable along the longitudinal axis from a first position wherein the bone fastener can be fixed to the bone to a second position in which the bone fastener is locked into position by the locking plate. The longitudinal freedom is defined by a sliding connection between the locking plate and the fixation plate. The locking plate is able to slide relative to the fixation plate. The fixation plate has a bottom surface, which faces the bone, and a top surface spaced therefrom (Fig. 2), and the sliding connection is formed by providing opposing shoulders (33, Fig. 6B below) in the top surface of the fixation plate so as to define a guide way (32, Fig. 6B)

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for the locking plate. The vertical freedom is defined by a lock screw (22, Fig. 2), which extends through an opening (24, Fig. 2) in the locking plate to secure the locking plate to the fixation plate. The distance between the first position and the second position defines a longitudinal play and the opening in the locking plate is a slot (24, Fig. 2) having a first end opposing a second end which together define the longitudinal play of the locking plate relative to the fixation plate. The locking plate has an exterior surface (Fig. 2) and the slot includes a counter sink (Figs. 2 and 3 below). The locking plate has an exterior surface (Fig. 2) and the slot includes a counter sink (Fig. 2 below), and the lock screw is capable of sinking substantially flush with the exterior surface of the locking plate (Fig. 3 below). The lock screw extends through a hole in the fixation plate (24, Fig. 2), and further has means to restrain it from exiting the threaded hole of the fixation plate. The means can be considered the threads of the bone screw, and the head of the screw, which frictionally engages the opening in the locking plate. The locking plate can simultaneously lock multiple bone fasteners into position. The plate can lock at least two in position, as seen in Fig. 6B. The bone fasteners are screws (28B and 28A, Fig. 2). At least two bone fasteners (28B and 28A, Fig. 2) are included and the locking plate and can simultaneously lock all the bone fasteners of the fixation plate. The plate can lock both screws at the same time when the locking plate is locked into position. A plurality of bone fasteners (28B and 28A, Fig. 2) are used in the bone plate assembly, and all of the bone fasteners of the fixation plate are aligned to enable them to be locked by the locking plate. Two points form a line, and the two screws are in two points in the plate, hence they are aligned. They are capable of being locked into

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the plate at the same time, as already discussed. The two screws are in alignment. The locking plate includes at least one opening (24, Fig. 2) which is capable of accepting a bone fastener, and which is further capable of being concentrically aligned with at least one opening for a bone fastener in the fixation plate when the locking plate is in a first position. The holes could be placed one above the other in the first position, before the locking plate is locked in the second position. Bray further discloses an implant for the spine, comprising: a plate for stabilizing the spine (14, Fig. 2), the plate having a number of openings (18, Fig. 2); a number of bone anchorage screws (28B and 28A, Fig. 2) each capable of engaging a corresponding one of the openings of the plate; and means for blocking the screws including at least one slide (20, Fig. 6B) which can be mounted on the plate to selectively cover at least a part of at least one of the screws. When the locking plate (20, Fig. 6B) engages the fixation plate (14, Fig. 6B), the plate can cover the top of the screws. Bray discloses means for retaining the slide on at least one of the screws, which is the lock screw (22, Fig. 2) along with the threaded hole (26, Fig. 6A) of the fixation plate. The slide is capable of cooperating with the retaining means, since the slide has a hole (24, Fig. 2). The plate defines a cavity (32, Fig. 6A) and the slide is capable of being mounted within the cavity (Fig. 3).

A locking plate, a washer, and a retaining mechanism can all be considered the same component. A washer is defined by the Merriam-Webster Online Dictionary as "a flat thin ring or a perforated plate used in joints or assemblies to ensure tightness, prevent leakage, or relieve friction." The locking plate is perforated (it has a hole) and it

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is used to ensure that the screws remain tightly bound to the plate. The plate is also a retaining mechanism, in that it is being used to retain the screws in their places.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9, 25 and 39, as best understood by the examiner, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bray (US Pat 6,235,034 B1) in view of Trebing et al. (US Pat. 5,601,553).

Bray discloses the claimed invention except for the locking plate having a threaded bore.

Trebing et al. disclose a locking plate having a threaded bore (30, Fig. 8 below), used for engaging the screw head to prevent back out (column 1, lines 35-39).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the locking plate of Bray with the threaded bore of Trebing et al, in order to better secure the screw to the plate (column 1, lines 35-39).

With regard to the statements of intended use and other functional statements, they do not impose any structural limitations on the claims distinguishable over Bray in view of Trebing et al., which is capable of being used as claimed if one so desires to do

so. *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Furthermore, the law of anticipation does not require that the reference "teach" what the subject patent teaches, but rather it is only necessary that the claims under attack "read on" something in the reference. *Kalman v. Kimberly Clark Corp.*, 218 USPQ 781 (CCPA 1983). Furthermore, the manner in which a device is intended to be employed does not differentiate the claimed apparatus from prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Response to Arguments

Applicant's arguments, see page 11 (arguments regarding the plate being secured and longitudinally adjustable), filed 12/22/2006, with respect to the rejection(s) of claim(s) 1 under 35 U.S.C 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the same reference (Bray, US Pat. 6,235,034), with a different interpretation of the reference (see below).

Applicant's arguments filed 12/22/2006 with respect to independent claim 15, 17, and 31 and the claims dependent thereon have been fully considered but they are not persuasive.

With regards to Applicant's argument that Bray does not disclose a locking plate that "is secured to the fixation plate and is longitudinally adjustable along said longitudinal axis" the Examiner respectfully disagrees. In Fig. 6B, Bray discloses a plate that has sidewalls (ref. 33). These sidewalls secure the locking plate to the fixation

plate, since they hold the locking plate in position over the fixation plate. The sidewalls still allow the fixation plate to be longitudinally adjusted in the direction of the longitudinal axis.

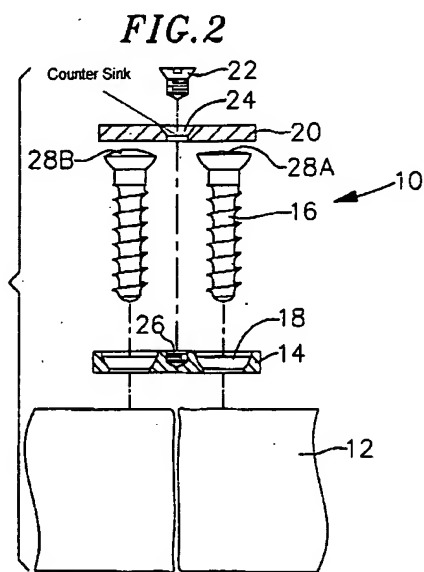
With regards to Applicant's argument that Bray does not disclose or suggest "at least one slide mounted on the plate to selectively cover at least a part of at least one of the screws", the Examiner respectfully disagrees. The locking plate of Bray in Fig. 6B can be considered to be a slide, since it can slide along the fixation plate. The locking plate of Bray is mounted on the fixation plate, since it sits on top of the fixation plate. The locking plate can selectively cover the screws, since the locking plate is capable of sliding along the fixation plate and covering any screws that a user selects to be covered.

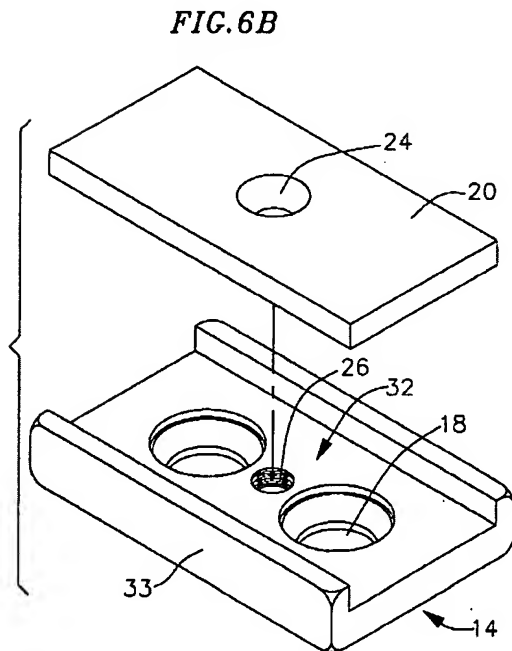
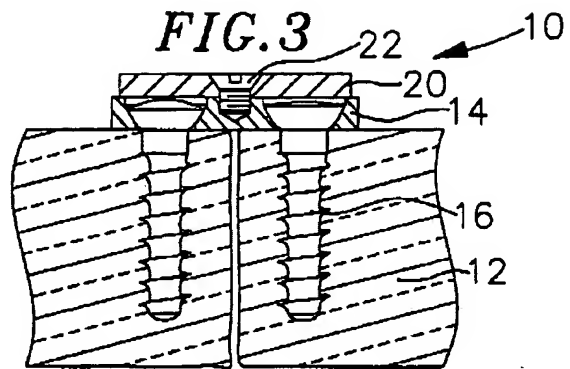
With regards to Applicant's argument that Bray does not disclose a locking plate having limited vertical and longitudinal freedom relative to the fixation plate, the Examiner respectfully disagrees. A definition of "limited" according to the American Heritage Dictionary is "to fix definitely". When the screw (Fig. 2, ref. 22) is placed completely into the hole (Fig. 2, ref. 26), the locking plate will be fixed definitely in the vertical and longitudinal directions relative to the fixation plate, and will thus have limited movement in those directions.

With regards to Applicant's argument that the combination of Trebing and Bray cannot produce the claimed invention, the Examiner respectfully disagrees. Bray teaches two plates, a locking plate (20, Fig. 2) and a fixation plate (14, Fig. 2 below). The Trebing reference teaches a plate having a threaded bore (30, Fig. 8 below), used

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for engaging the screw head to prevent back-out (Trebing, column 1, lines 35-39). This use of a threaded hole in a bone plate to prevent back-out of a screw would also prove beneficial to the locking plate disclosed by Bray. Therefore in combination, the Trebing reference and the Bray reference produce the claimed invention.





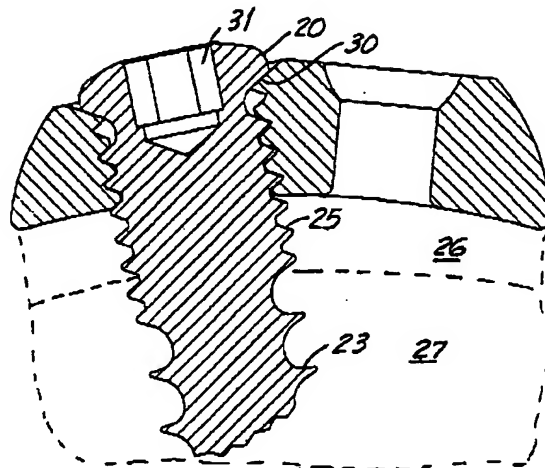


FIG. 8

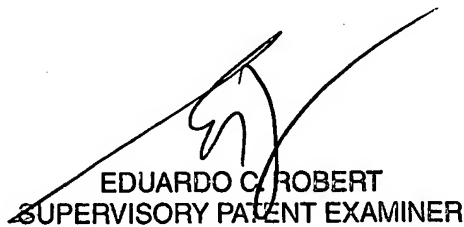
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Cumberledge whose telephone number is (571) 272-2289. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached on (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLC



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